

**WHAT IS CLAIMED IS:**

1. A method of reporting reception states of first information received on a first traffic channel and second information received on a second traffic channel in one frame from a base station in a mobile station, comprising the steps of:

allocating bits indicating the reception states of the first and the second information to slots of a reverse frame; and  
transmitting the reverse frame;

10 wherein the reception state indicating bits of the first and the second information are reception result indicator bits for power control on a frame basis.

2. The method of claim 1, wherein the reception state indicating bits of the first information and the reception state indicating bits of the second information are alternatively allocated.

3. The method of claim 1, wherein the reverse frame is a pilot channel frame.

20 4. The method of claim 1, wherein the reception state indicating bits of the first information are QIBs (Quality Indicator Bits) and the reception state indicating bits of the second information are EIBs (Erasure Indicator Bits).

25 5. The method of claim 1, wherein the reception state indicating bits of the first information and the reception state indicating bits of the second information are transmitted at a 50 bps data rate.

6. A method of controlling transmission power of traffic channels in a base station which transmits a first information on a first traffic channel and

a second information on a second traffic channel in one frame to a mobile station, wherein a reception result of the first and the second information is received from the mobile station, comprising the steps of:

receiving a reverse frame including reception state indicating bits of the  
5 first information and reception state indicating bits of the second information in a plurality of slots;

separating the reception state indicating bits from the reverse frame according to the first and the second information; and

10 performing a power control on the first and the second traffic channels according to the first and the second information;

wherein the reception state indicating bits of the first and the second information are reception result indicator bits for power control on a frame basis.

7. The method of claim 6, wherein the reception state indicating  
15 bits of the first information and the reception state indicating bits of the second information are alternatively allocated.

8. The method of claim 6, wherein the reverse frame is a pilot channel frame.

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9. The method of claim 6, wherein the reception state indicating bits of the first information are QIBs (Quality Indicator Bits) and the reception state indicating bits of the second information are EIBs (Erasure Indicator Bits).

25 10. The method of claim 6, wherein the reception state indicating bits of the first information and the reception state indicating bits of the second information are transmitted at a 50 bps data rate.

11. A mobile station for receiving first information on a first traffic channel and second information on a second traffic channel in one frame from a base station and reporting reception results of the first and the second information to the base station, comprising:

- 5        a first multiplexer (MUX) for multiplexing reception state indicating bits of the first and the second information; and  
            a second MUX for sequentially allocating the multiplexed the reception state indicating bits of the first and the second information in slots of a reverse frame, each slot having one reception state indicating bit.

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12. The mobile station of claim 11, wherein the first MUX allocates a first predetermined number of successive reception state indicating bits of the first information, each bit being allocated to a successive leading slot, and a second predetermined number of successive reception state indicating bits of the 15 second information, each bit being allocated to a successive trailing slot, the trailing slots following the leading slots for the first information.

13. The mobile station of claim 11, wherein the reception state indicating bits of the first and second information are reception result indicator 20 bits for power control on a frame basis.

14. The mobile station of claim 11, wherein the reverse frame is a pilot channel frame.

25        15. The mobile station of claim 11, wherein the reception state indicating bits of the first information are QIBs (Quality Indicator Bits) and the reception state indicating bits of the second information are EIBs (Erasure Indicator Bits).

16. The mobile station of claim 11, wherein the reception state indicating bits of the first information and the reception state indicating bits of the second information are transmitted at a 50 bps data rate.

5        17. A base station for transmitting first information on a first traffic channel and second information on a second traffic channel in one frame to a mobile station and receiving the reception results of the first and the second information from the mobile station, comprising:

10      a first demultiplexer (DEMUX) for receiving a reverse frame including a plurality of slots and for separating reception state indicating bits of the first and the second information multiplexed by the mobile station from the reverse frame; and

15      a second DEMUX for demultiplexing the multiplexed reception state indicating bits into the reception state indicating bits of the first information and the reception state indicating bits of the second information.

18. The base station of claim 17, wherein the multiplexed reception state indicating bits of the first information are arranged in consecutive leading slots of the reverse frame and the multiplexed reception state indicating bits of the second information are arranged in trailing consecutive slots following the leading slots.

19. The base station of claim 17, wherein the reception state indicating bits of the first and the second information are reception result indicator bits for power control on a frame basis.

20. The base station of claim 17, wherein the reverse frame is a pilot channel frame.

21. The mobile station of claim 17, wherein the reception state indicating bits of the first information are QIBs (Quality Indicator Bits) and the reception state indicating bits of the second information are EIBs (Erasure Indicator Bits).

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22. The mobile station of claim 17, wherein the reception state indicating bits of the first information and the reception state indicating bits of the second information are transmitted at a 50 bps data rate.

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